

Filed Electronically on:

May 31, 2011

PETITION FROM RESTRICTION REQUIREMENT UNDER 37 CFR § 1.144	Attorney Docket No.	AREN-005CON
Address to:	Confirmation No.	2177
Commissioner for Patents	First Named Inventor	Behan, Dominic P.
P.O. Box 1450	Application Number	10/668,035
Alexandria, VA 22313-1450	Filing Date	September 22, 2003
	Group Art Unit	1646
	Examiner Name	Li, Ruixiang
	Title:	"Endogenous, Constitutively Activated G Protein-Coupled Orphan Receptors"

Sir:

In this petition, the Director is requested to review the Examiner's communication of May 13, 2010, which sets forth a Restriction Requirement for the above-referenced application.

The nine Groups from which Applicants were required to elect were set forth as follows by the Examiner (the claims as currently pending are provided in the Claims Appendix below):

- I. Claims 1-3, 8, 10, 20, 21, 23-25 (all in part), and 22, drawn to a method for identifying a candidate compound as an agonist or inverse agonist of orphan receptor GPR3 (SEQ ID NO: 46), class 435, subclasses 5.
- II. Claims 1-3, 8, 10, 20, 21, and 23-25 (all in part), drawn to a method for identifying a candidate compound as an agonist or inverse agonist of orphan receptor GPR4 (SEQ ID NO: 60), class 435, subclasses 5.
- III. Claims 1-3, 8, 10, 20, 21, 23-25 (all in part), and 9, drawn to a method for identifying a candidate compound as an agonist or inverse agonist of orphan receptor GPR6 (SEQ ID NO: 47), class 435, subclasses 5.
- IV. Claims 1-3, 8, 10, 20, 21, and 23-25 (all in part), drawn to a method for identifying a candidate compound as an agonist or inverse agonist of orphan receptor GPR12 (SEQ ID NO: 48), class 435, subclasses 5.

- V. Claims 1-3, 8, 10, 20, 21, and 23-25 (all in part), drawn to a method for identifying a candidate compound as an agonist or inverse agonist of orphan receptor GPR21 (SEQ ID NO: 50), class 435, subclasses 5.
- VI. Claims 1-3, 8, 10, 20, 21, and 23-25 (all in part), drawn to a method for identifying a candidate compound as an agonist or inverse agonist of orphan receptor OGRI (SEQ ID NO: 27), class 435, subclasses 5.
- VII. Claims 1-3, 8, 10, 20, 21, and 23-25 (all in part), drawn to a method for identifying a candidate compound as an agonist or inverse agonist of orphan receptor GHSR (SEQ ID NO: 45), class 435, subclasses 5.
- VIII. Claims 1-3, 8, 10, 20, 21, and 23-25 (all in part), drawn to a method for identifying a candidate compound as an agonist or inverse agonist of orphan receptor RE2 (SEQ ID NO: 23), class 435, subclasses 5.
- IX. Claims 1-3, 8, 10, 20, 21, and 23-25 (all in part), drawn to a method for identifying a candidate compound as an agonist or inverse agonist of orphan receptor AL022171 (SEQ ID NO: 49), class 435, subclasses 5.

On November 11, 2010, Applicants elected Group I for examination on the merits *with traverse*. The Examiner made the Restriction Requirement “Final” in the Non-Final Office Action mailed December 1, 2010.

First, Applicants note that the full scope of the claims as currently pending were searched and examined by a previous examiner in the present application prior to the issuance of the May 13, 2010 Restriction Requirement by the current Examiner. Thus, the prior Examiner did not view the claimed invention as being split into nine different Groups or presenting a serious search burden.

Second, related to the fact that the previous Examiner searched the full scope of the presently claimed invention, Applicants submit that the Restriction Requirement of May 13, 2010 is not in compliance with Office practice as set forth in MPEP §808.02. Specifically, Applicants submit that the Examiner has not established: (1) a separate classification for the nine Groups (they are classified identically in the May 13, 2010 communication), (2) a separate status in the art for the nine Groups

(Applicants note that claims of similar scope were issued in US Patent 6,653,086), or (3) a different field of search for the nine Groups. As stated in MPEP §808.02 “Where, however, the classification is the same and the field of search is the same and there is no clear indication of separate future classification and field of search, no reasons exist for dividing among independent or related inventions.”

Third, Applicants submit that the Examiner has not set forth a Restriction Requirement in compliance with MPEP §803.02, which describes Office restriction practice for Markush-type claims (see, e.g., dependent Claim 8 in the Claims Appendix below). As can be seen above, the Examiner has separated the different orphan receptors recited in the dependent claims of the subject application into different Groups rather than into different species. Therefore, while Applicants still maintain that the full scope of the claims should be examined, at the very least, the election should have been for nine different species and not nine different Groups.

In view of the foregoing discussion, the Director is requested to review the Examiner's Restriction Requirement dated May 13, 2010.

If the Examiner finds that a telephone conference would expedite the prosecution of this application, please telephone the undersigned at (650) 833-7707. The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-0815, order number AREN-005CON.

Respectfully submitted,
BOZICEVIC, FIELD & FRANCIS LLP

Date: May 31, 2011

By: /David C. Scherer, Reg. No. 56,993/
David C. Scherer, Ph.D.; Reg. No. 56,993

BOZICEVIC, FIELD & FRANCIS LLP
1900 University Avenue, Suite 200
East Palo Alto, California 94303
Telephone: (650) 327-3400
Facsimile: (650) 327-3231

CLAIMS APPENDIX

1. (Previously presented) A method for directly identifying a candidate compound as an agonist or inverse agonist of an endogenous, constitutively active G protein coupled orphan receptor, comprising the steps of:

(a) providing a GPCR Fusion Protein, said GPCR Fusion Protein comprising:

- (i) an endogenous, constitutively active G protein coupled orphan receptor; and
- (ii) a G protein; and

(b) contacting said GPCR Fusion Protein with a candidate compound;

(c) measuring the ability of said compound to inhibit or stimulate the activity of said receptor; and

(d) identifying said compound as an agonist or an inverse agonist of said receptor, wherein said compound is identified as an agonist by stimulating the activity of said receptor, and said compound is identified as an inverse agonist by inhibiting the activity of said receptor.

2. (Original) The method of claim 1 wherein the compound is directly identified as an inverse agonist to said orphan receptor.

3. (Original) The method of claim 1 wherein the compound is directly identified as an agonist to said orphan receptor.

4. -7. (Canceled)

8. (Previously presented) The method of claim 1 wherein said orphan receptor is selected from the group consisting of: GPR3 (SEQ ID NO:46), GPR4 (SEQ ID NO:60), GPR6 (SEQ ID NO:47), GPR12 (SEQ ID NO:48), GPR21 (SEQ ID NO:50), OGR1 (SEQ ID NO:27), GHSR (SEQ ID NO:45), RE2 (SEQ ID NO:23) and ALO22171 (SEQ ID NO:49).

9. (Withdrawn) The method of claim 1 wherein said orphan receptor is GPR6.

10. (Original) The method of claim 1 wherein said G protein is selected from the group consisting of: Gs, Gi, Gq and Go.

11. - 19. (Canceled)

20. (Previously presented) The method of claim 1, wherein said GPCR fusion protein is expressed in a mammalian cell.

21. (Previously presented) The method of claim 1 or 20, wherein said constitutively active G protein coupled orphan receptor is mammalian.

22. (Previously presented) The method of claim 1, wherein said orphan receptor is GPR3.

23. (Previously presented) The method of claim 1, wherein said orphan receptor is associated with a disease state or disorder selected from: obesity and epilepsy.

24. (Previously presented) The method of claim 1, wherein said method further comprises formulating said identified agonist or inverse agonist as a pharmaceutical composition.

25. (Previously presented) The method of claim 1, wherein said method is carried out using a GTP membrane binding scintillation proximity assay.